



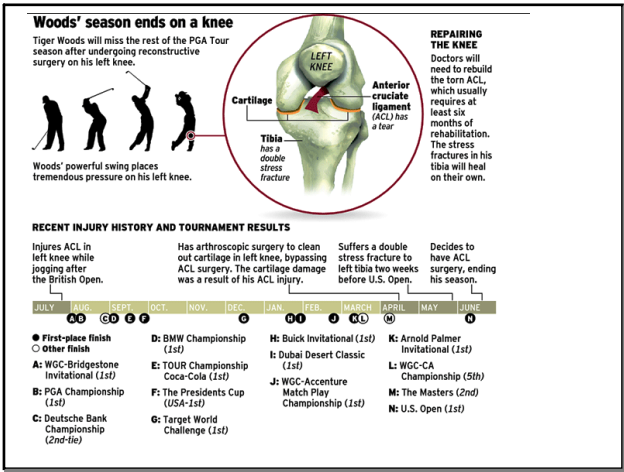
Woods' knee injury puts pro golf in painful position

Fast Facts

- 1. Date: [April 15, 2008](#)
- 2. Hospital: [HealthSouth Medical Center](#)
- 3. [Surgery](#) type: [Arthroscopy](#)
- 4. Recovery: 4-6 weeks
- 5. Treatment for [knee pain](#)
- 6. Finished in 2nd place at the [2008 Masters](#)
- 7. Won the 2008 [United States Open](#), in [June](#)
- 8. Had a [benign tumor](#) removed from the same knee in [1994](#)

Oct 15-8:06 AM

Oct 15-8:07 AM



June 19, 2008
Bob Cole was happily putting on the practice green at Torrey Pines Golf Course yesterday morning, waiting for his name to be called on the first day the public could play the South Course since Tiger Woods' dramatic playoff win Monday over Rocco Mediate in a U.S. Open for the ages. Then Cole was told the news: Woods had triumphed despite playing 72 holes in regulation and 19 more in the playoff with a torn anterior cruciate ligament in his left knee and a double stress fracture of his left tibia, the large bone in the lower leg.

The world's No. 1 golfer revealed he has been playing with a torn ACL since last July and said he will sit out the rest of the 2008 PGA Tour season after undergoing reconstructive surgery on his knee.

Oct 15-8:27 AM

Oct 15-8:08 AM

Earl Woods, the father of the most enigmatic golfer the world has seen, once said: 'Tiger knew how to swing a club before he could walk'. Considering that at the age of three Tiger Woods shot a 48 for nine holes, this is probably not much of an exaggeration. It's as though the golfing gods set out to construct the ultimate golfer. And I am sure they must feel it was a job well done.

It was in 1997 that a new champion exploded on to the world golf scene – not just any old champion but one who transformed the game and the public's perception of the game. Tiger Woods gave golf a 'wow' factor. For many people, a game steeped in an elitist country club tradition became exciting for the first time, thanks to the daring and unorthodox play of the 23-year-old, charismatic, fist-pumping African-American-Thai giant.

Oct 15-8:10 AM

Oct 15-8:12 AM

For the next six years Tiger rewrote the record books: most money won in a season; youngest player to complete a career grand slam of majors; first player to be reigning champion of all four majors; first to have won the US Open by 15 shots – the biggest margin ever recorded in a major tournament.

Oct 15-8:13 AM

Tiger's obvious strength and strong core turn his baseline physical attributes into a power-packed swing. He is one of the biggest drivers on the tour, regularly surpassing 300m. His short game is the epitome of creativity and poise. From long curling putts to lofty chips over bunkers, it is a joy to watch.

Oct 15-8:14 AM

When Tiger Woods joined the professional golf tour in 1996 he weighed 155lb (70.4kg). Aware that his ability to generate massive clubhead speed put his joints – in particular his back – at risk of injury, and wanting a complete swing that maximised the large torque-producing muscles of his body, Tiger made it a priority to bulk up. He is now 35lb heavier and confidently says that he has never suffered low back pain. He is a keen runner, considering this important to maintain body balance, stability and cardiovascular fitness.

Oct 15-8:16 AM

It was 2002 when things started to go wrong for Woods. For most of the year he was suffering severe discomfort with a knee injury and that December he had arthroscopic surgery to remove fluid that had built up and address inflammation in and around the anterior cruciate ligament in his left knee – from which he had previously had a benign tumor removed in 1994. Most ACL injuries are due to rotational trauma, but in Tiger's case the injury was chronic, resulting from excessive repeated valgus positioning and tibiofemoral rotation.

Oct 15-8:17 AM

Although not the most common cause of injury in golf, the knee can still be a problem. During the back swing, the left knee (for a righthander) is forced into external tibial rotation as the pelvis rotates to the right, and a valgus force is imparted on the knee as the weight transfers on to the medial border of the left foot and the ankle everts.

On follow-through the weight transfers to the lateral border of the foot and the tibia internally rotates as the femur externally rotates while the trunk and pelvis powerfully uncoil into left rotation.

Oct 15-8:20 AM

Tiger Woods' swing involves a huge trunk rotation, and he may just possibly have set himself up for his knee injury back in 1997 when he deliberately remodelled his swing. His aim was to concentrate on body rotation and decrease his hand and forearm action. The result was a slight decrease in distance but an increase in accuracy, which brought home another seven major championships. But might it also have delivered an increase in rotational load through that left knee joint?

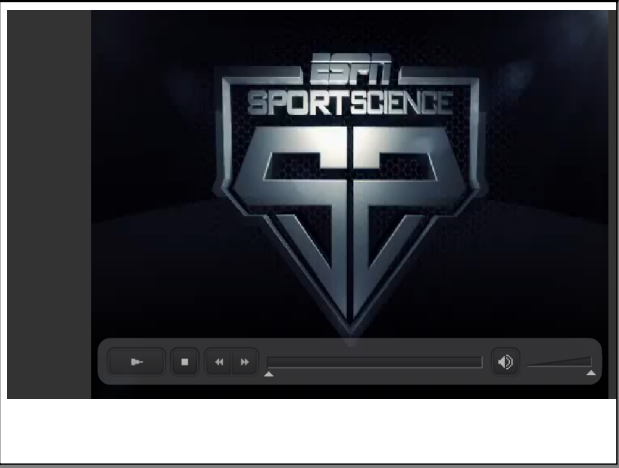
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A key in preventing knee injury is to ensure there is no decrease in internal tibial rotation. Technique, natural mechanical alignment and, importantly, adequate rotation further up the chain need to be addressed in a golfer suffering from pain relating to rotational overload.

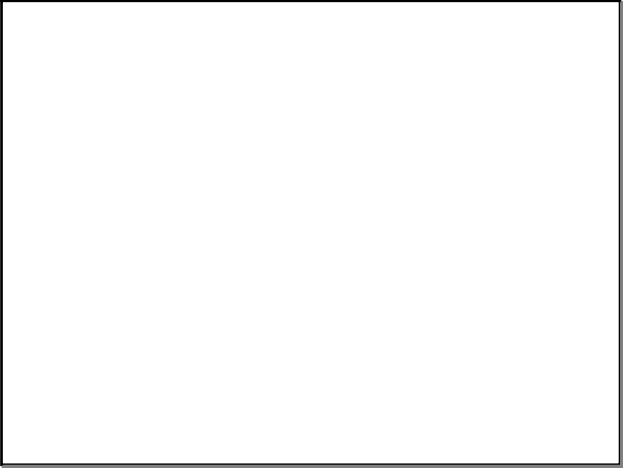
Oct 15-8:22 AM



Oct 15-8:25 AM



Oct 18-7:19 AM



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